



BILLING CODE 3510-22-P

DEPARTMENT OF COMMERCE

National Oceanic and Atmospheric Administration

RIN 0648-XD815

Takes of Marine Mammals Incidental to Specified Activities; Seabird Monitoring and Research in Glacier Bay National Park, Alaska, 2015

AGENCY: National Marine Fisheries Service (NMFS), National Oceanic and Atmospheric Administration (NOAA), Commerce.

ACTION: Notice; proposed incidental harassment authorization; request for comments.

SUMMARY: NMFS has received an application from Glacier Bay National Park (Glacier Bay NP) to take marine mammals, by harassment, incidental to conducting seabird research from May through September, 2015. The proposed dates for this action are May 15, 2015, through September 30, 2015. Per the Marine Mammal Protection Act, we are requesting comments on our proposal to issue an Authorization to the Glacier Bay NP to incidentally take, by Level B harassment only, one species of marine mammal during the specified activity.

DATES: NMFS must receive comments and information on or before *[INSERT DATE 30 DAYS AFTER DATE OF PUBLICATION IN THE FEDERAL REGISTER]*.

ADDRESSES: Address comments on the application to Jolie Harrison, Division Chief, Permits and Conservation Division, Office of Protected Resources, National Marine Fisheries Service, 1315 East-West Highway, Silver Spring, MD 20910. The mailbox address for providing email comments is *ITP.Cody@noaa.gov*. Please include 0648-

XD815 in the subject line. Comments sent via email to *ITP.Cody@noaa.gov*, including all attachments, must not exceed a 25-megabyte file size. NMFS is not responsible for e-mail comments sent to addresses other than the one provided here.

Instructions: All submitted comments are a part of the public record and NMFS will post them to <http://www.nmfs.noaa.gov/pr/permits/incidental/research.htm> without change. All Personal Identifying Information (for example, name, address, etc.) voluntarily submitted by the commenter may be publicly accessible. Do not submit confidential business information or otherwise sensitive or protected information.

To obtain an electronic copy of the application containing a list of the references used in this document, write to the previously mentioned address, telephone the contact listed here (see **FOR FURTHER INFORMATION CONTACT**), or visit the internet at: <http://www.nmfs.noaa.gov/pr/permits/incidental/research.htm>.

Information in Glacier Bay NP's application, NMFS' 2014 Environmental Assessment titled, *Environmental Assessment for the Issuance of an Incidental Harassment Authorization to Take Marine Mammals by Harassment Incidental to Conducting Seabird Research in Glacier Bay Alaska*, and this notice collectively provide the environmental information related to proposed issuance of the Authorization for public review and comment.

FOR FURTHER INFORMATION CONTACT: Jeannine Cody, NMFS, Office of Protected Resources, NMFS (301) 427-8401.

SUPPLEMENTARY INFORMATION:

Background

Section 101(a)(5)(D) of the Marine Mammal Protection Act of 1972, as amended

(MMPA; 16 U.S.C. 1361 *et seq.*) directs the Secretary of Commerce to allow, upon request, the incidental, but not intentional, taking of small numbers of marine mammals of a species or population stock, by U.S. citizens who engage in a specified activity (other than commercial fishing) within a specified geographical region if, after NMFS provides a notice of a proposed authorization to the public for review and comment: (1) NMFS makes certain findings; and (2) the taking is limited to harassment.

An Authorization shall be granted for the incidental taking of small numbers of marine mammals if NMFS finds that the taking will have a negligible impact on the species or stock(s), and will not have an unmitigable adverse impact on the availability of the species or stock(s) for subsistence uses (where relevant). The Authorization must also set forth the permissible methods of taking; other means of effecting the least practicable adverse impact on the species or stock and its habitat; and requirements pertaining to the monitoring and reporting of such taking. NMFS has defined "negligible impact" in 50 CFR 216.103 as "an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival."

Except with respect to certain activities not pertinent here, the MMPA defines "harassment" as: any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild [Level A harassment]; or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering [Level B harassment].

Summary of Request

On January 15, 2015, NMFS received an application from Glacier Bay NP requesting that we issue an Authorization for the take of marine mammals, incidental to conducting monitoring and research studies on glaucous-winged gulls (*Larus glaucescens*) within Glacier Bay National Park and Preserve in Alaska. NMFS determined the application complete and adequate on February 27, 2015. NMFS previously issued an Authorization to Glacier Bay NP for the same activities in 2014 (79 FR 56065, September 18, 2014). No seabird research activities occurred during the effective period of the prior Authorization.

Glacier Bay NP proposes to conduct ground-based and vessel-based surveys to collect data on the number and distribution of nesting gulls within five study sites in Glacier Bay, AK. Glacier Bay NP proposes to complete up to five visits per study site, from May through September, 2015.

The proposed activities are within the vicinity of pinniped haulout sites and the following aspects of the proposed activities are likely to result in the take of marine mammals: noise generated by motorboat approaches and departures; noise generated by researchers while conducting ground surveys; and human presence during the monitoring and research activities. NMFS anticipates that take by Level B harassment only, of individuals of harbor seals (*Phoca vitulina*) would result from the specified activity. Although Steller sea lions (*Eumetopias jubatus*) may be present in the action area, Glacier Bay NP has proposed to avoid any site used by Steller sea lions.

Description of the Specified Activity

Overview

Glacier Bay NP proposes to identify the onset of gull nesting; conduct mid-season surveys of adult gulls, and locate and document gull nest sites within the following study areas: Boulder, Lone, and Flapjack Islands, and Geikie Rock. Each of these study sites contains harbor seal haulout sites and Glacier Bay NP proposes to visit each study site up to five times during the research season.

Glacier Bay NP must conduct the gull monitoring studies to meet the requirements of a 2010 Record of Decision for a Legislative Environmental Impact Statement (NPS, 2010) which states that Glacier Bay NP must initiate a monitoring program for the gulls to inform future native egg harvests by the Hoonah Tlingit in Glacier Bay, AK. Glacier Bay NP actively monitors harbor seals at breeding and molting sites to assess population trends over time (*e.g.*, Mathews & Pendleton, 2006; Womble *et al.*, 2010). Glacier Bay NP also coordinates pinniped monitoring programs with NMFS' National Marine Mammal Laboratory and the Alaska Department of Fish & Game and plans to continue these collaborations and sharing of monitoring data and observations in the future.

Dates and Duration

Glacier Bay NP proposes to conduct the proposed activities from the period of May 15 through September 30, 2015. Glacier Bay NP proposes to conduct a maximum of three ground-based surveys per each study site and a maximum of two vessel-based surveys per each study site.

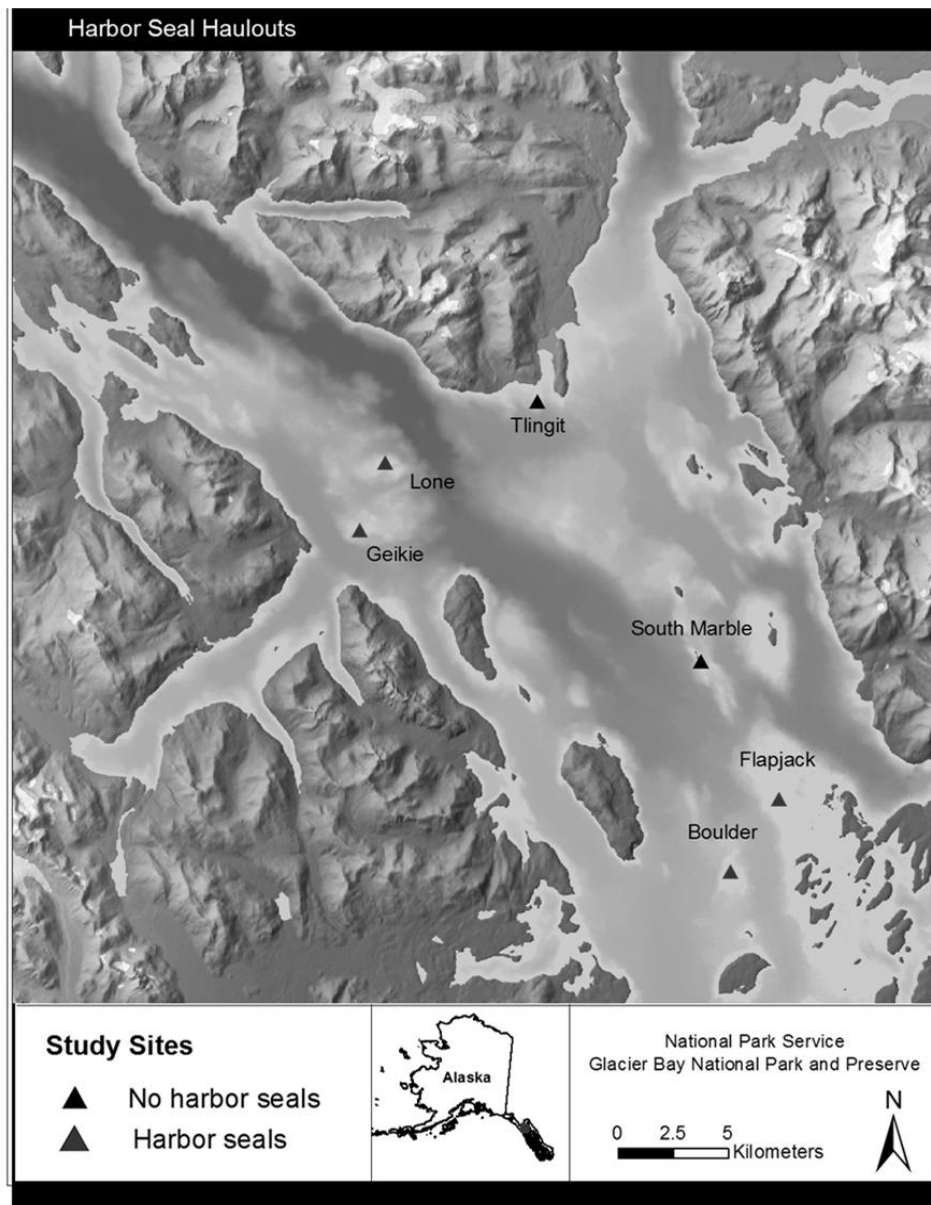
Thus, the proposed Authorization, if issued, would be effective from May 15, 2015 through September 30, 2015. NMFS refers the reader to the Detailed Description of

Activities section later in this notice for more information on the scope of the proposed activities.

Specified Geographic Region

The proposed study sites would occur in the vicinity of the following locations: Boulder (58° 33' 18.08" N; 136° 1' 13.36" W), Lone (58° 43' 17.67" N; 136° 17' 41.32" W), and Flapjack (58° 35' 10.19" N; 135° 58' 50.78" W) Islands, and Geikie Rock (58° 41' 39.75" N; 136° 18' 39.06" W) in Glacier Bay, Alaska. Glacier Bay NP will also conduct studies at Tlingit Point Islet located at 58° 45' 16.86" N; 136° 10' 41.74" W; however, there are no reported pinniped haulout sites at that location.

Figure 1. Proposed locations of the gull monitoring and research sites in Glacier Bay, AK, May through September, 2015.



Detailed Description of Activities

Glacier Bay NP proposes to conduct: (1) ground-based surveys at a maximum frequency of three visits per site; and (2) vessel-based surveys at a maximum frequency of two visits per site from the period of May 15 through September 30, 2015.

Ground-Based Surveys: These surveys involve two trained observers visiting the largest gull colony on each island to: (1) obtain information on the numbers of nests, their location, and contents (*i.e.*, eggs or chicks); (2) determine the onset of laying, distribution, abundance, and predation of gull nests and eggs; and (3) record the proximity of other species relative to colony locations.

The observers would access each island using a kayak, a 32.8 to 39.4-foot (ft) (10 to 12 meter (m)) motorboat, or a 12 ft (4 m) inflatable rowing dinghy. The landing craft's transit speed would not exceed 4 knots (4.6 miles per hour (mph)). Ground surveys generally last from 30 minutes to up to two hours depending on the size of the island and the number of nesting gulls. Glacier Bay NP will discontinue ground surveys after they detect the first hatchling to minimize disturbance to the gull colonies.

Vessel-Based Surveys: These surveys involve two trained observers observing and counting the number of adult and fledgling gulls from the deck of a motorized vessel which would transit around each island at a distance of approximately 328 ft (100 m) to avoid flushing the birds from the colonies. Vessel-based surveys generally last from 30 minutes to up to two hours depending on the size of the island and the number of nesting gulls.

Description of Marine Mammals in the Area of the Specified Activity

Table 1 in this notice provides the following information: all marine mammal species with possible or confirmed occurrence in the proposed survey areas on land; information on those species' regulatory status under the MMPA and the Endangered Species Act of 1973 (16 U.S.C. 1531 *et seq.*); abundance; occurrence and seasonality in the activity area.

Table 1 - General information on marine mammals that could potentially haul out in the proposed study areas in May through September, 2015.

Species	Stock Name	Regulatory Status ^{1, 2}	Stock/Species Abundance ³	Occurrence and Range	Season
Harbor seal (<i>Phoca vitulina</i>)	Glacier Bay / Icy Strait	MMPA - NC ESA - NL	5,042	common coastal	year-round
Steller sea lion (<i>Eumetopias jubatus</i>)	Eastern U.S.	MMPA - D, S ESA - NL	63,160 – 78,198	uncommon coastal	year-round
Steller sea lion (<i>Eumetopias jubatus</i>)	Western U.S.	MMPA - D, S ESA - T	52,200	rare coastal	unknown

¹ MMPA: D = Depleted, S = Strategic, NC = Not Classified.

² ESA: EN = Endangered, T = Threatened, DL = Delisted, NL = Not listed.

³ 2013 NMFS Stock Assessment Report (Allen and Anglis, 2014).

NMFS refers the public to the Glacier Bay NP's application and the 2014 NMFS Marine Mammal Stock Assessment Report available online at:

<http://www.nmfs.noaa.gov/pr/sars/species.htm> for further information on the biology and local distribution of these species.

Other Marine Mammals in the Proposed Action Area

Northern sea otters (*Enhydra lutris kenyoni*) and polar bears (*Ursis maritimus*) listed as threatened under the Endangered Species Act could occur in the proposed area. The U.S. Fish and Wildlife Service manages these species and NMFS does not consider them further in this notice.

Potential Effects of the Specified Activities on Marine Mammals

This section includes a summary and discussion of the ways that the types of stressors associated with the specified activity (*e.g.*, personnel presence) have been observed to

impact marine mammals. This discussion may also include reactions that NMFS considers to rise to the level of a take and those that we do not consider to rise to the level of a take. This section serves as a background of potential effects and does not consider either the specific manner in which the applicant will carry out the activity or the mitigation that will be implemented, and how either of those will shape the anticipated impacts from this specific activity. The “Estimated Take by Incidental Harassment” section later in this document will include a quantitative analysis of the number of individuals that NMFS expects Glacier Bay NP to take during this activity. The “Negligible Impact Analysis” section will include the analysis of how this specific activity would impact marine mammals. NMFS will consider the content of the following sections: Estimated Take by Incidental Harassment; Proposed Mitigation; and Anticipated Effects on Marine Mammal Habitat, to draw conclusions regarding the likely impacts of this activity on the reproductive success or survivorship of individuals—and from that consideration—the likely impacts of this activity on the affected marine mammal populations or stocks.

Potential Effects of Human Presence on Marine Mammals

The appearance of Glacier Bay researchers has the potential to cause Level B harassment of pinnipeds hauled out on Boulder, Lone, and Flapjack Islands, and Geikie Rock. Disturbance includes a variety of effects, including subtle to conspicuous changes in behavior, movement, and displacement. Disturbance may result in reactions ranging from an animal simply becoming alert to the presence of the surveyors (*e.g.*, turning the head, assuming a more upright posture) to flushing from the haul-out site into the water. NMFS does not consider the lesser reactions to constitute behavioral harassment, or

Level B harassment takes, but rather assumes that pinnipeds that move greater than 1 meter (m) (3.3 feet (ft)) or change the speed or direction of their movement in response to the presence of surveyors are behaviorally harassed, and thus subject to Level B taking. Animals that respond to the presence of researchers by becoming alert, but that do not move or change the nature of locomotion as described, are not considered to have been subject to behavioral harassment.

Reactions to human presence, if any, depend on species, state of maturity, experience, current activity, reproductive state, time of day, and many other factors (Richardson *et al.*, 1995; Wartzok *et al.*, 2004; Southall *et al.*, 2007; Weilgart, 2007). These behavioral reactions are often shown as: changing durations of surfacing and dives, number of blows per surfacing, or moving direction and/or speed; reduced/increased vocal activities; changing/cessation of certain behavioral activities (such as socializing or feeding); visible startle response or aggressive behavior; avoidance of areas; and/or flight responses (*e.g.*, pinnipeds flushing into the water from haul-outs or rookeries). If a marine mammal does react briefly to human presence by changing its behavior or moving a small distance, the impacts of the change are unlikely to be significant to the individual, let alone the stock or population. However, if visual stimuli from human presence displaces marine mammals from an important feeding or breeding area for a prolonged period, impacts on individuals and populations could be significant (*e.g.*, Lusseau and Bejder, 2007; Weilgart, 2007).

Disturbances resulting from human activity can impact short- and long-term pinniped haul out behavior (Renouf *et al.*, 1981; Schneider and Payne, 1983; Terhune and Almon, 1983; Allen *et al.*, 1984; Stewart, 1984; Suryan and Harvey, 1999; Mortenson *et al.*,

2000; and Kucey and Trites, 2006). Numerous studies have shown that human activity can flush harbor seals off haulout sites (Allen *et al.*, 1984; Calambokidis *et al.*, 1991; Suryan and Harvey, 1999; and Mortenson *et al.*, 2000) or lead to Hawaiian monk seal (*Monachus schauinslandi*) avoidance of beach areas (Kenyon, 1972). In one case, human disturbance appeared to cause Steller sea lions to desert a breeding area at Northeast Point on St. Paul Island, Alaska (Kenyon, 1962).

In cases where vessels actively approached marine mammals (*e.g.*, whale watching or dolphin watching boats), scientists have documented that animals exhibit altered behavior such as increased swimming speed, erratic movement, and active avoidance behavior (Bursk, 1983; Acevedo, 1991; Baker and MacGibbon, 1991; Trites and Bain, 2000; Williams *et al.*, 2002; Constantine *et al.*, 2003), reduced blow interval (Ritcher *et al.*, 2003), disruption of normal social behaviors (Lusseau, 2003; 2006), and the shift of behavioral activities which may increase energetic costs (Constantine *et al.*, 2003; 2004). In 1997, Henry and Hammil (2001) conducted a study to measure the impacts of small boats (*i.e.*, kayaks, canoes, motorboats and sailboats) on harbor seal haulout behavior in Métis Bay, Quebec, Canada. During that study, the authors noted that the most frequent disturbances (n=73) were caused by lower speed, lingering kayaks, and canoes (33.3 percent) as opposed to motorboats (27.8 percent) conducting high speed passes. The seals' flight reactions could be linked to a surprise factor by kayaks-canoes that approach slowly, quietly and low on water, making them look like predators. However, the authors note that once the animals were disturbed, there did not appear to be any significant lingering effect on the recovery of numbers to their pre-disturbance levels. In conclusion,

the study showed that boat traffic at current levels has only a temporary effect on the haulout behavior of harbor seals in the Métis Bay area.

In 2004, Johnson and Acevedo-Gutierrez (2007) evaluated the efficacy of buffer zones for watercraft around harbor seal haulout sites on Yellow Island, Washington. The authors estimated the minimum distance between the vessels and the haul-out sites; categorized the vessel types; and evaluated seal responses to the disturbances. During the course of the seven-weekend study, the authors recorded 14 human-related disturbances which were associated with stopped powerboats and kayaks. During these events, hauled out seals became noticeably active and moved into the water. The flushing occurred when stopped kayaks and powerboats were at distances as far as 453 and 1,217 ft (138 and 371 m) respectively. The authors note that the seals were unaffected by passing powerboats, even those approaching as close as 128 ft (39 m), possibly indicating that the animals had become tolerant of the brief presence of the vessels and ignored them. The authors reported that on average, the seals quickly recovered from the disturbances and returned to the haulout site in less than or equal to 60 minutes. Seal numbers did not return to pre-disturbance levels within 180 minutes of the disturbance less than one quarter of the time observed. The study concluded that the return of seal numbers to pre-disturbance levels and the relatively regular seasonal cycle in abundance throughout the area counter the idea that disturbances from powerboats may result in site abandonment (Johnson and Acevedo-Gutierrez, 2007). As a general statement from the available information, pinnipeds exposed to intense (approximately 110 to 120 decibels re: 20 μ Pa) non-pulse sounds often leave haulout areas and seek refuge temporarily (minutes to a few hours) in the water (Southall *et al.*, 2007).

There are three ways in which disturbance, as described previously, could result in more than Level B harassment of marine mammals. All three are most likely to be consequences of stampeding, a potentially dangerous occurrence in which large numbers of animals succumb to mass panic and rush away from a stimulus. The three situations are: (1) falling when entering the water at high-relief locations; (2) extended separation of mothers and pups; and (3) crushing of pups by large males during a stampede. However, NMFS does not expect any of these scenarios to occur at the proposed survey site.

Because hauled-out animals may move towards the water when disturbed, there is the risk of injury if animals stampede towards shorelines with precipitous relief (*e.g.*, cliffs). However, while high-elevation sites exist on the islands, the haulout sites consist of ridges with unimpeded and non-obstructive access to the water. If disturbed, the small number of hauled-out adult animals may move toward the water without risk of encountering barriers or hazards that would otherwise prevent them from leaving the area.

The probability of vessel and marine mammal interactions (*i.e.*, motorboat strike) occurring during the proposed research activities is unlikely due to the motorboat's slow operational speed, which is typically 2 to 3 knots (2.3 to 3.4 mph) and the researchers continually scanning the water for marine mammals presence during transit to the islands. Thus, NMFS does not anticipate that strikes or collisions would result from the movement of the motorboat.

Anticipated Effects on Marine Mammal Habitat

We do not anticipate that the proposed operations would result in any temporary or permanent effects on the habitats used by the marine mammals in the proposed area,

including the food sources they use (*i.e.*, fish and invertebrates). While NMFS anticipates that the specified activity may result in marine mammals avoiding certain areas due to motorboat operations or human presence, this impact to habitat is temporary and reversible. NMFS considered these as behavioral modification. The main impact associated with the proposed activity will be temporarily elevated noise levels and the associated direct effects on marine mammals, previously discussed in this notice. Based on the preceding discussion, NMFS does not anticipate that the proposed activity would have any habitat-related effects that could cause significant or long-term consequences for individual marine mammals or their populations.

Proposed Mitigation

In order to issue an incidental take authorization under section 101(a)(5)(D) of the MMPA, NMFS must set forth the permissible methods of taking pursuant to such activity, and other means of effecting the least practicable adverse impact on such species or stock and its habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance, and on the availability of such species or stock for taking for certain subsistence uses (where relevant). Applications for incidental take authorizations must include the availability and feasibility (economic and technological) of equipment, methods, and manner of conducting the activity or other means of effecting the least practicable adverse impact on the affected species or stock and their habitat 50 CFR 216.104(a)(11).

The Glacier Bay NP has reviewed the following source documents and has incorporated a suite of proposed mitigation measures into their project description.

(1) Recommended best practices in Womble *et al.* (2013); Richardson *et al.* (1995);

Pierson *et al.* (1998); and Weir and Dolman, (2007).

To reduce the potential for disturbance from acoustic and visual stimuli associated with the activities Glacier Bay NP and/or its designees has proposed to implement the following mitigation measures for marine mammals:

- Perform pre-survey monitoring before deciding to access a study site;
- Avoid accessing a site based on a pre-determined threshold number of animals present; sites used by pinnipeds for pupping; or sites used by Steller sea lions;
- Perform controlled and slow ingress to the study site to prevent a stampede and select a pathway of approach to minimize the number of marine mammals harassed;
- Monitor for offshore predators at study sites. Avoid approaching the study site if killer whales (*Orcinus orca*) are present. If Glacier Bay NP and/or its designees see predators in the area, they must not disturb the pinnipeds until the area is free of predators.
- Maintain a quiet research atmosphere in the visual presence of pinnipeds.

Pre-Survey Monitoring: Prior to deciding to land onshore to conduct the study, the researchers would use high-powered image stabilizing binoculars from the watercraft to document the number, species, and location of hauled out marine mammals at each island. The vessels would maintain a distance of 328 to 1,640 ft (100 to 500 m) from the shoreline to allow the researchers to conduct pre-survey monitoring. During every visit, the researchers will examine each study site closely using high powered image stabilizing binoculars before approaching at distances of greater than 500 m (1,640 ft) to determine and document the number, species, and location of hauled out marine mammals.

Site Avoidance: Researchers would decide whether or not to approach the island based on the species present, number of individuals, and the presence of pups. If there are high numbers (more than 25) harbor seals hauled out (with or without young pups present), any time pups are present, or any time that Steller sea lions are present, the researchers will not approach the island and will not conduct gull monitoring research.

Controlled Landings: The researchers would determine whether to approach the island based on the number and type of animals present. If the island has 25 or fewer individuals without pups, the researchers would approach the island by motorboat at a speed of approximately 2 to 3 knots (2.3 to 3.4 mph). This would provide enough time for any marine mammals present to slowly enter the water without panic or stampede. The researchers would also select a pathway of approach farthest from the hauled out harbor seals to minimize disturbance.

Minimize Predator Interactions: If the researchers visually observe marine predators (*i.e.* killer whales) present in the vicinity of hauled out marine mammals, the researchers would not approach the study site.

Noise Reduction Protocols: While onshore at study sites, the researchers would remain vigilant for hauled out marine mammals. If marine mammals are present, the researchers would move slowly and use quiet voices to minimize disturbance to the animals present.

Mitigation Conclusions

NMFS has carefully evaluated Glacier Bay NP's proposed mitigation measures in the context of ensuring that we prescribe the means of effecting the least practicable impact on the affected marine mammal species and stocks and their habitat. Our evaluation of

potential measures included consideration of the following factors in relation to one another:

- The manner in which, and the degree to which, the successful implementation of the measure is expected to minimize adverse impacts to marine mammals;
- The proven or likely efficacy of the specific measure to minimize adverse impacts as planned; and
- The practicability of the measure for applicant implementation.

Any mitigation measure(s) prescribed by NMFS should be able to accomplish, have a reasonable likelihood of accomplishing (based on current science), or contribute to the accomplishment of one or more of the general goals listed here:

1. Avoidance or minimization of injury or death of marine mammals wherever possible (goals 2, 3, and 4 may contribute to this goal).
2. A reduction in the numbers of marine mammals (total number or number at biologically important time or location) exposed to motorboat operations or visual presence that we expect to result in the take of marine mammals (this goal may contribute to 1, above, or to reducing harassment takes only).
3. A reduction in the number of times (total number or number at biologically important time or location) individuals exposed to motorboat operations or visual presence that we expect to result in the take of marine mammals (this goal may contribute to 1, above, or to reducing harassment takes only).
4. A reduction in the intensity of exposures (either total number or number at biologically important time or location) to motorboat operations or visual presence that

we expect to result in the take of marine mammals (this goal may contribute to a, above, or to reducing the severity of harassment takes only).

5. Avoidance or minimization of adverse effects to marine mammal habitat, paying special attention to the food base, activities that block or limit passage to or from biologically important areas, permanent destruction of habitat, or temporary destruction/disturbance of habitat during a biologically important time.

6. For monitoring directly related to mitigation—an increase in the probability of detecting marine mammals, thus allowing for more effective implementation of the mitigation.

Based on the evaluation of Glacier Bay NP’s proposed measures, NMFS has preliminarily determined that the proposed mitigation measures provide the means of effecting the least practicable impact on marine mammal species or stocks and their habitat, paying particular attention to rookeries, mating grounds, and areas of similar significance.

Proposed Monitoring

In order to issue an ITA for an activity, section 101(a)(5)(D) of the MMPA states that NMFS must set forth “requirements pertaining to the monitoring and reporting of such taking.” The MMPA implementing regulations at 50 CFR 216.104 (a)(13) indicate that requests for Authorizations must include the suggested means of accomplishing the necessary monitoring and reporting that will result in increased knowledge of the species and of the level of taking or impacts on populations of marine mammals that we expect to be present in the proposed action area. Glacier Bay NP submitted a marine mammal monitoring plan in section 13 of their Authorization application.

Monitoring measures prescribed by NMFS should accomplish one or more of the following general goals:

1. An increase in our understanding of the likely occurrence of marine mammal species in the vicinity of the action, (*i.e.*, presence, abundance, distribution, and/or density of species).
2. An increase in our understanding of the nature, scope, or context of the likely exposure of marine mammal species to any of the potential stressor(s) associated with the action (*e.g.*, sound or visual stimuli), through better understanding of one or more of the following: the action itself and its environment (*e.g.*, sound source characterization, propagation, and ambient noise levels); the affected species (*e.g.*, life history or dive pattern); the likely co-occurrence of marine mammal species with the action (in whole or part) associated with specific adverse effects; and/or the likely biological or behavioral context of exposure to the stressor for the marine mammal (*e.g.*, age class of exposed animals or known pupping, calving or feeding areas).
3. An increase in our understanding of how individual marine mammals respond (behaviorally or physiologically) to the specific stressors associated with the action (in specific contexts, where possible, *e.g.*, at what distance or received level).
4. An increase in our understanding of how anticipated individual responses, to individual stressors or anticipated combinations of stressors, may impact either: the long-term fitness and survival of an individual; or the population, species, or stock (*e.g.* through effects on annual rates of recruitment or survival).
5. An increase in our understanding of how the activity affects marine mammal habitat, such as through effects on prey sources or acoustic habitat (*e.g.*, through

characterization of longer-term contributions of multiple sound sources to rising ambient noise levels and assessment of the potential chronic effects on marine mammals).

6. An increase in understanding of the impacts of the activity on marine mammals in combination with the impacts of other anthropogenic activities or natural factors occurring in the region.

7. An increase in our understanding of the effectiveness of mitigation and monitoring measures.

8. An increase in the probability of detecting marine mammals (through improved technology or methodology), both specifically within the safety zone (thus allowing for more effective implementation of the mitigation) and in general, to better achieve the above goals.

As part of its Authorization application, Glacier Bay NP proposes to sponsor marine mammal monitoring during the project, in order to implement the mitigation measures that require real-time monitoring, and to satisfy the monitoring requirements of the MMPA.

The Glacier Bay NP researchers will monitor the area for pinnipeds during all research activities. Monitoring activities will consist of conducting and recording observations on pinnipeds within the vicinity of the proposed research areas. The monitoring notes would provide dates and location of the researcher's activities and the number and type of species present. The researchers would document the behavioral state of animals present, and any apparent disturbance reactions or lack thereof.

Glacier Bay NP can add to the knowledge of pinnipeds in the proposed action area by noting observations of: (1) unusual behaviors, numbers, or distributions of pinnipeds,

such that any potential follow-up research can be conducted by the appropriate personnel; (2) tag-bearing carcasses of pinnipeds, allowing transmittal of the information to appropriate agencies and personnel; and (3) rare or unusual species of marine mammals for agency follow-up.

If at any time injury, serious injury, or mortality of the species for which take is authorized should occur, or if take of any kind of any other marine mammal occurs, and such action may be a result of the proposed land survey, Glacier Bay NP would suspend research and monitoring activities and contact NMFS immediately to determine how best to proceed to ensure that another injury or death does not occur and to ensure that the applicant remains in compliance with the MMPA.

Encouraging and Coordinating Research

Glacier Bay NP actively monitors harbor seals at breeding and molting haul out locations to assess trends over time (*e.g.*, Mathews & Pendleton, 2006; Womble *et al.* 2010, Womble and Gende, 2013b). This monitoring program involves collaborations with biologists from the Alaska Department of Fish and Game, and the National Marine Mammal Laboratory. Glacier Bay NP will continue these collaborations and encourage continued or renewed monitoring of marine mammal species. Additionally, they would report vessel-based counts of marine mammals, branded, or injured animals, and all observed disturbances to the appropriate state and federal agencies.

Proposed Reporting

Glacier Bay NP will submit a draft monitoring report to us no later than 90 days after the expiration of the Incidental Harassment Authorization, if we issue it. The report will describe the operations conducted and sightings of marine mammals near the proposed

project. The report will provide full documentation of methods, results, and interpretation pertaining to all monitoring. The report will provide:

1. A summary and table of the dates, times, and weather during all research activities.
2. Species, number, location, and behavior of any marine mammals observed throughout all monitoring activities.
3. An estimate of the number (by species) of marine mammals exposed to acoustic or visual stimuli associated with the research activities.
4. A description of the implementation and effectiveness of the monitoring and mitigation measures of the Authorization and full documentation of methods, results, and interpretation pertaining to all monitoring.

In the unanticipated event that the specified activity clearly causes the take of a marine mammal in a manner prohibited by the authorization, such as an injury (Level A harassment), serious injury, or mortality (*e.g.*, vessel-strike, stampede, etc.), Glacier Bay NP shall immediately cease the specified activities and immediately report the incident to the Division Chief, Permits and Conservation Division, Office of Protected Resources, NMFS, at 301-427-8401 and the Alaska Regional Stranding Coordinator at (907) 586-7248. The report must include the following information:

- Time, date, and location (latitude/longitude) of the incident;
- Description and location of the incident (including water depth, if applicable);
- Environmental conditions (*e.g.*, wind speed and direction, Beaufort sea state, cloud cover, and visibility);
- Description of all marine mammal observations in the 24 hours preceding the incident;

- Species identification or description of the animal(s) involved;
- Fate of the animal(s); and
- Photographs or video footage of the animal(s) (if equipment is available).

Glacier Bay NP shall not resume its activities until NMFS is able to review the circumstances of the prohibited take. We will work with Glacier Bay to determine what is necessary to minimize the likelihood of further prohibited take and ensure MMPA compliance. Glacier Bay NP may not resume their activities until notified by us via letter, email, or telephone.

In the event that Glacier Bay NP discovers an injured or dead marine mammal, and the lead researcher determines that the cause of the injury or death is unknown and the death is relatively recent (*i.e.*, in less than a moderate state of decomposition as we describe in the next paragraph), Glacier Bay NP will immediately report the incident to the Division Chief, Permits and Conservation Division, Office of Protected Resources, NMFS, at 301-427-8401 and the Alaska Regional Stranding Coordinator at (907) 586-7248. The report must include the same information identified in the paragraph above this section. Activities may continue while we review the circumstances of the incident. We will work with Glacier Bay NP to determine whether modifications in the activities are appropriate.

In the event that Glacier Bay NP discovers an injured or dead marine mammal, and the lead visual observer determines that the injury or death is not associated with or related to the authorized activities (*e.g.*, previously wounded animal, carcass with moderate to advanced decomposition, or scavenger damage), Glacier Bay will report the incident to the incident to the Division Chief, Permits and Conservation Division, Office

of Protected Resources, NMFS, at 301-427-8401 and the Alaska Regional Stranding Coordinator at (907) 586-7248 within 24 hours of the discovery. Glacier Bay NP researchers will provide photographs or video footage (if available) or other documentation of the stranded animal sighting to us. Glacier Bay NP can continue their research activities.

Estimated Take by Incidental Harassment

Except with respect to certain activities not pertinent here, the MMPA defines "harassment" as: any act of pursuit, torment, or annoyance which (i) has the potential to injure a marine mammal or marine mammal stock in the wild [Level A harassment]; or (ii) has the potential to disturb a marine mammal or marine mammal stock in the wild by causing disruption of behavioral patterns, including, but not limited to, migration, breathing, nursing, breeding, feeding, or sheltering [Level B harassment].

All anticipated takes would be by Level B harassment, involving temporary changes in behavior. NMFS expects that the proposed mitigation and monitoring measures would minimize the possibility of injurious or lethal takes. NMFS considers the potential for take by injury, serious injury, or mortality as remote. NMFS expects that the presence of Glacier Bay NP personnel could disturb animals hauled out and that the animals may alter their behavior or attempt to move away from the researchers.

As discussed earlier, NMFS considers an animal to have been harassed if it moved greater than 1 m (3.3 ft) in response to the surveyors' presence or if the animal was already moving and changed direction and/or speed, or if the animal flushed into the water. NMFS does not consider animals that became alert without such movements as harassed.

Based on pinniped survey counts conducted by Glacier Bay NP (*e.g.*, Mathews & Pendleton, 2006; Womble *et al.*, 2010), NMFS estimates that the research activities could potentially affect by Level B behavioral harassment 500 harbor seals over the course of the Authorization (Table 2). This estimate represents 9.9 percent of the Glacier Bay/Icy Strait stock of harbor seals and accounts for a maximum disturbance of 25 harbor seals each per visit at Boulder, Lone, and Flapjack Islands, and Geikie Rock, Alaska over a maximum level of five visits.

Table 2 - Estimates of the possible numbers of marine mammals exposed to acoustic and visual stimuli during the proposed research activities on Boulder, Lone, and Flapjack Islands, and Geikie Rock, Alaska, May through September, 2015.

Species	Est. Number of Individuals Exposed	Proposed Take Authorization	Percent of Species or Stock ¹	Population Trend ²
Harbor seal	500	500	9.9	Declining
Steller sea lion	0	0	0	Increasing

¹ Table 1 in this notice lists the stock species abundance estimates that NMFS used to calculate the percentage of species/stock.

² The population trend information is from Allen and Angliss, 2014. No data = Insufficient data to determine population trend.

Harbor seals tend to haul out in small numbers (on average, less than 50 animals) at most sites with the exception of Flapjack Island (Womble, Pers. Comm.). Animals on Flapjack Boulder Islands generally haul out on the south side of the Islands and are not located near the research sites located on the northern side of the Islands. Aerial survey maximum counts show that harbor seals sometimes haul out in large numbers at all four locations (see Table 2 in Glacier Bays NP's application), and sometimes individuals and mother/pup pairs occupy different terrestrial locations than the main haulout (J. Womble, personal observation).

Considering the conservation status for the Western stock of the Steller sea lion, the Glacier Bay NP researchers would not conduct ground-based or vessel-based surveys if they observe Steller sea lions before accessing Boulder, Lone, and Flapjack Islands, and

Geikie Rock. Thus, NMFS expects no takes to occur for this species during the proposed activities.

NMFS does not propose to authorize any injury, serious injury, or mortality. NMFS expect all potential takes to fall under the category of Level B harassment only.

Analysis and Preliminary Determinations

Negligible Impact

Negligible impact' is "an impact resulting from the specified activity that cannot be reasonably expected to, and is not reasonably likely to, adversely affect the species or stock through effects on annual rates of recruitment or survival" (50 CFR 216.103). The lack of likely adverse effects on annual rates of recruitment or survival (*i.e.*, population level effects) forms the basis of a negligible impact finding. An estimate of the number of Level B harassment takes alone is not enough information on which to base an impact determination. In addition to considering estimates of the number of marine mammals that might be "taken" through behavioral harassment, NMFS considers other factors, such as the likely nature of any responses (*e.g.*, intensity, duration), the context of any responses (*e.g.*, critical reproductive time or location, migration), as well as the number and nature of estimated Level A harassment takes, the number of estimated mortalities, and effects on habitat.

Although Glacier Bay NP's survey activities may disturb harbor seals hauled out at the survey sites, NMFS expects those impacts to occur to a small, localized group of animals for a limited duration (*e.g.*, 30 minutes to two hours each visit). Pinnipeds would likely become alert or, at most, flush into the water in reaction to the presence of Glacier Bay NP personnel during the proposed activities. Disturbance will be limited to a short

duration, allowing the animals to reoccupy the island within a short amount of time.

Thus, the proposed action is unlikely to result in long-term impacts such as permanent abandonment of the haul-out.

For reasons stated previously in this document and based on the following factors, Glacier Bay NP's specified activities are not likely to cause long-term behavioral disturbance, injury, serious injury, or death. These reasons include:

1. The effects of the research activities would be limited to short-term responses and temporary behavioral changes due to the short and sporadic duration of the research activities. Minor and brief responses are not likely to constitute disruption of behavioral patterns, such as migration, nursing, breeding, feeding, or sheltering.

2. The availability of alternate areas for pinnipeds to avoid the resultant disturbances from the research operations. Anecdotal reports from previous Glacier Bay NP activities have shown that the pinnipeds returned to the various sites and did not permanently abandon haul-out sites after Glacier Bay NP conducted their research activities.

3. There is no potential for large-scale movements leading to injury, serious injury, or mortality because the researchers would delay ingress into the landing areas only after the pinnipeds have slowly entered the water.

4. Glacier Bay NP will limit access to Boulder, Lone, and Flapjack Islands, and Geikie Rock when there are high numbers (more than 25) harbor seals hauled out (with or without young pups present), any time pups are present, or any time that Steller sea lions are present, the researchers will not approach the island and will not conduct gull monitoring research.

NMFS does not anticipate that any injuries, serious injuries, or mortalities would

occur as a result of Glacier Bay NP's proposed activities with the mitigation and related monitoring, and NMFS does not propose to authorize injury, serious injury, or mortality at this time. In addition, the research activities would not take place in areas of significance for marine mammal feeding, resting, breeding, or calving and would not adversely impact marine mammal habitat.

Due to the nature, degree, and context of Level B (behavioral) harassment anticipated and described (see "Potential Effects on Marine Mammals" section in this notice), we do not expect the activity to impact annual rates of recruitment or survival for any affected species or stock.

In summary, NMFS anticipates that impacts to hauled-out harbor seals during Glacier Bay NP's research activities would be behavioral harassment of limited duration (*i.e.*, up to two hours per visit) and limited intensity (*i.e.*, temporary flushing at most). NMFS does not expect stampeding, and therefore injury or mortality, to occur (see "Mitigation" for more details). Based on the analysis contained herein of the likely effects of the specified activity on marine mammals and their habitat, and taking into consideration the implementation of the proposed monitoring and mitigation measures, NMFS preliminarily finds that the total marine mammal take from Glacier Bay's proposed research activities will have a negligible impact on the affected marine mammal species or stocks.

Small Numbers

As mentioned previously, NMFS estimates that Glacier Bay NP's activities could potentially affect, by Level B harassment only, one species of marine mammal under our

jurisdiction. For harbor seals, this estimate is small (9.9 percent) relative to the population size and we have provided the percentage of the harbor seal's regional population estimate that the activities may take by Level B harassment in Table 2 in this notice.

Based on the analysis contained in this notice of the likely effects of the specified activity on marine mammals and their habitat, and taking into consideration the implementation of the mitigation and monitoring measures, NMFS preliminarily finds that Glacier Bay NP's proposed activities would take small numbers of marine mammals relative to the populations of the affected species or stocks.

Impact on Availability of Affected Species or Stock for Taking for Subsistence Uses

There are no relevant subsistence uses of marine mammals implicated by this action. Glacier Bay National Park prohibits subsistence harvest of harbor seals within the Park (Catton, 1995).

Endangered Species Act (ESA)

NMFS does not expect that Glacier Bay NP's proposed research activities (which includes mitigation measures to avoid harassment of Steller sea lions) would affect any species listed under the ESA. Therefore, NMFS has determined that a section 7 consultation under the ESA is not required.

National Environmental Policy Act (NEPA)

In 2014, NMFS prepared an Environmental Assessment (EA) analyzing the potential effects to the human environment from NMFS' issuance of a Authorization to Glacier Bay NP for their seabird research activities.

In September 2014, NMFS issued a Finding of No Significant Impact (FONSI) on the issuance of an Authorization for Point Blue's research activities in accordance with

section 6.01 of the NOAA Administrative Order 216-6 (Environmental Review Procedures for Implementing the National Environmental Policy Act, May 20, 1999). Glacier Bay NP's proposed activities and impacts for 2015 are within the scope of the 2014 EA and FONSI. NMFS provided relevant environmental information to the public through a previous notice for the proposed Authorization (79 FR 32226, June 4, 2014) and considered public comments received in response prior to finalizing the 2014 EA and deciding whether or not to issue a Finding of No Significant Impact (FONSI).

NMFS has reviewed the 2014 EA and determined that there are no new direct, indirect, or cumulative impacts to the human and natural environment associated with the Authorization requiring evaluation in a supplemental EA and NMFS, therefore, proposes to reaffirm the 2014 FONSI. NMFS' EA and FONSI for this activity are available upon request (see **ADDRESSES**).

Proposed Authorization

As a result of these preliminary determinations, NMFS proposes issuing an Incidental Harassment Authorization to Glacier Bay National Park for conducting seabird research May through September, 2015, provided they incorporate the previously mentioned mitigation, monitoring, and reporting requirements.

Draft Proposed Authorization

This section contains the draft text for the proposed Authorization. NMFS proposes to include this language in the Authorization if issued.

Proposed Authorization Language

Glacier Bay National Park, P.O. Box 140, Gustavus, Alaska 99826 and/or its designees (holders of the Authorization) are hereby authorized under section

101(a)(5)(D) of the Marine Mammal Protection Act (16 U.S.C. 1371(a)(5)(D)) to harass small numbers of marine mammals incidental to conducting monitoring and research studies on glaucous-winged gulls (*Larus glaucescens*) within Glacier Bay National Park and Preserve in Alaska.

1. This Authorization is valid from May 15 through September 30, 2015.

2. This Authorization is valid only for research activities that occur in the following specified geographic areas: Boulder (58° 33' 18.08" N; 136° 1' 13.36" W); Lone (58° 43' 17.67" N; 136° 17' 41.32" W), and Flapjack (58° 35' 10.19" N; 135° 58' 50.78" W) Islands, and Geikie Rock (58° 41' 39.75" N; 136° 18' 39.06" W); and Tlingit Point Islet (58° 45' 16.86" N; 136° 10' 41.74" W) in Glacier Bay, Alaska.

3. Species Authorized and Level of Takes

a. The taking, by Level B harassment only, is limited to the following species: 500 Pacific harbor seals (*Phoca vitulina*).

b. The taking by injury (Level A harassment), serious injury or death of any of the species listed in Condition 3(a) or the taking of any kind of any other species of marine mammal is prohibited and may result in the modification, suspension or revocation of this Authorization.

c. The taking of any marine mammal in a manner prohibited under this Authorization must be reported immediately to the Chief, Permits and Conservation Division, Office of Protected Resources, NMFS, at (301) 427-8401.

4. General Conditions

A copy of this Authorization must be in the possession of Glacier Bay National Park, its designees, and field crew personnel (including research collaborators) operating under the authority of this Authorization at all times.

5. Mitigation Measures

The Holder of this Authorization is required to implement the following mitigation measures:

a. Conduct pre-survey monitoring before deciding to access a study site. Prior to deciding to land onshore of Boulder, Lone, or Flapjack Island or Geikie Rock, the Holder of this Authorization will use high-powered image stabilizing binoculars before approaching at distances of greater than 500 m (1,640 ft) to determine and document the number, species, and location of hauled out marine mammals.. The vessels will maintain a distance of 328 to 1,640 ft (100 to 500 m) from the shoreline.

i. If the Holder of the Authorization determines that there are 25 or more harbor seals (with or without young pups present) hauled out on the shoreline, the holder will not access the island and will not conduct the study at that time.

ii. If the Holder of the Authorization determines that any Steller sea lions (*Eumetopias jubatus*) are present at the study site, the Holder will not access the island and will not conduct the study at that time.

iii. If the Holder of the Authorization determines that there are any pups hauled out on the shoreline and vulnerable to being separated from their mothers, the Holder will not access the island and will not conduct the study at that time.

b. Minimize the potential for disturbance by: 1) performing controlled and slow ingress to the study site to prevent a stampede; and 2) selecting a pathway of approach farthest from the hauled out harbor seals to minimize disturbance.

c. Monitor for offshore predators at the study sites and avoid research activities when predators are present. Avoid approaching the study site if killer whales (*Orcinus orca*)

are present. If the Holder of this Authorization observes predators in the area, they must not disturb the pinnipeds until the area is free of predators.

d. Maintain a quiet working atmosphere, avoid loud noises, and use hushed voices in the presence of hauled out pinnipeds.

6. Monitoring

Glacier Bay NP is required to record the following:

a. BLM and/or its designees shall record the following:

i. Species counts (with numbers of adults/juveniles); and:

ii. Numbers of disturbances, by species and age, according to a three-point scale of intensity including: (1) Head orientation in response to disturbance, which may include turning head towards the disturbance, craning head and neck while holding the body rigid in a u-shaped position, or changing from a lying to a sitting position and/or slight movement of less than 1 meter; “alert”; (2) Movements in response to or away from disturbance, typically over short distances (1-3 meters) and including dramatic changes in direction or speed of locomotion for animals already in motion; “movement”; and (3) All flushes to the water as well as lengthier retreats (>3 meters); “flight”.

iii. Information on the weather, including the tidal state and horizontal visibility.

b. If applicable, the observer shall note observations of marked or tag-bearing pinnipeds or carcasses, as well as any rare or unusual species of marine mammal.

c. If applicable, the observer shall note the presence of any offshore predators (date, time, number, and species).

7. Reporting

The holder of this Authorization is required to:

a. Draft Report: Submit a draft monitoring report to the Division Chief, Permits and Conservation Division, Office of Protected Resources, National Marine Fisheries Service within 90 days after the Authorization expires. NMFS will review the Draft Report which is subject to review and comment by NMFS. Glacier Bay NP must address any

recommendations made by NMFS in the Final Report prior to submission to NMFS. If NMFS decides that the draft final report needs no comments, NMFS will consider the draft report as the Final Report.

b. Final Report: Glacier Bay shall prepare and submit a Final Report to NMFS within 30 days following resolution of any comments on the draft report from NMFS.

8. Reporting Injured or Dead Marine Mammals

In the unanticipated event that the specified activity clearly causes the take of a marine mammal in a manner prohibited by the authorization, such as an injury (Level A harassment), serious injury, or mortality (*e.g.*, vessel-strike, stampede, etc.), BLM and/or its designees shall immediately cease the specified activities and immediately report the incident to the Division Chief, Permits and Conservation Division, Office of Protected Resources, NMFS, at 301-427-8401 and the Alaska Regional Stranding Coordinator at (907) 586-7248. The report must include the following information:

- Time, date, and location (latitude/longitude) of the incident;
- Description and location of the incident (including water depth, if applicable);
- Environmental conditions (*e.g.*, wind speed and direction, Beaufort sea state, cloud cover, and visibility);
- Description of all marine mammal observations in the 24 hours preceding the incident;
- Species identification or description of the animal(s) involved;
- Fate of the animal(s); and
- Photographs or video footage of the animal(s) (if equipment is available).

Glacier Bay NP shall not resume its activities until NMFS is able to review the circumstances of the prohibited take. NMFS will work with Glacier Bay NP to determine what is necessary to minimize the likelihood of further prohibited take and ensure MMPA compliance. Glacier Bay NP may not resume their activities until notified by us via letter, email, or telephone.

In the event that Glacier Bay NP discovers an injured or dead marine mammal, and the marine mammal observer determines that the cause of the injury or death is unknown and the death is relatively recent (*i.e.*, in less than a moderate state of decomposition as we describe in the next paragraph), Glacier Bay NP will immediately report the incident to the Division Chief, Permits and Conservation Division, Office of Protected Resources, NMFS, at 301-427-8401 and the Alaska Regional Stranding Coordinator at (907) 586-7248. The report must include the same information identified in the paragraph above this section. Activities may continue while NMFS reviews the circumstances of the incident. NMFS would work with Glacier Bay NP to determine whether modifications in the activities are appropriate.

In the event that Glacier Bay NP discovers an injured or dead marine mammal, and the lead visual observer determines that the injury or death is not associated with or related to the authorized activities (*e.g.*, previously wounded animal, carcass with moderate to advanced decomposition, or scavenger damage), Glacier Bay NP will report the incident to the Division Chief, Permits and Conservation Division, Office of Protected Resources, NMFS, at 301-427-8401 and the Alaska Regional Stranding Coordinator at (907) 586-7248 within 24 hours of the discovery. Glacier Bay NP personnel will provide photographs or video footage (*if available*) or other

documentation of the stranded animal sighting to us. Glacier Bay NP can continue their survey activities while NMFS reviews the circumstances of the incident.

Request for Public Comments

NMFS invites comments on our analysis, the draft authorization, and any other aspect of the notice of proposed Authorization for Glacier Bay NP's activities.

Please include any supporting data or literature citations with your comments to help inform our final decision on Glacier Bay NP's request for an Authorization.

Dated: March 31, 2015.

Donna S. Wieting,
Director, Office of Protected Resources,
National Marine Fisheries Service.

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